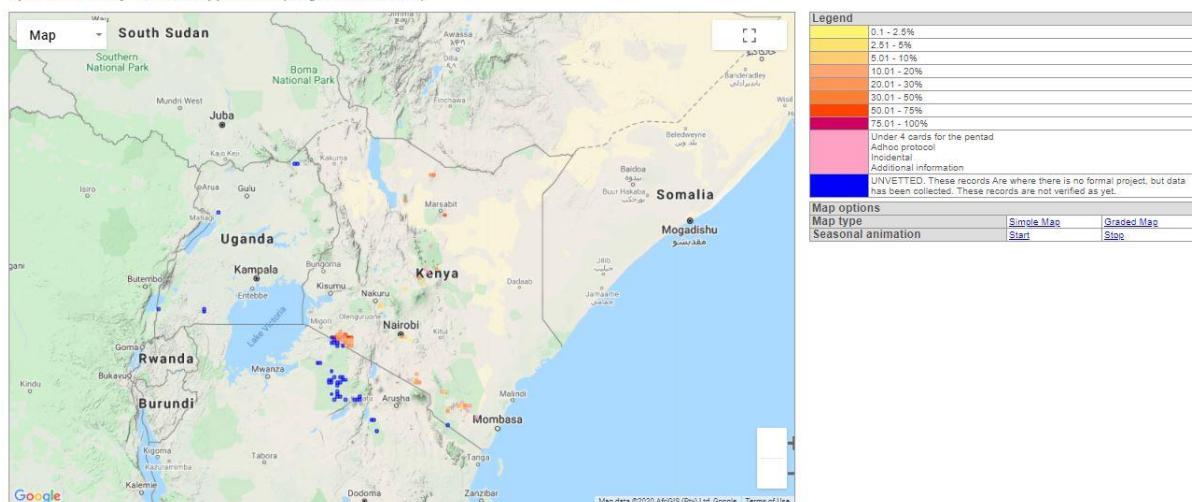# GUIDE TO GETTING STARTED WITH THE KENYA BIRD MAP

Introduction to the Kenya Bird Map project

The Kenya Bird Map is a research project aiming to document the current distribution and status of all birds across Kenya. It is a collaborative project run jointly by the National Museums of Kenya (Ornithology Section), A Rocha Kenya, the Tropical Biology Association, the Bird Committee of Nature Kenya, and the Percy FitzPatrick Institute of African Ornithology (University of Cape Town). It is part of the greater African Bird Atlas Project.

The way the Bird Map - or a Bird Atlas - works is that the area being mapped/atlassed (in our case, Kenya) is divided into grid squares called pentads. These pentads are 5'x5' in size (approx. 9kmx9km). Observers, or bird mappers/atlassers, visit each pentad and record a list of all species of birds that they see or hear. This then allows us to make a distribution map for each species across the country. So, for example, on the map below, we can see all of the pentads where the Lappet-faced Vulture has been recorded - thus giving us a map of the distribution for that species.

Clearly, just a single visit to a place is not going to give you a full species list - and therefore repeat visits need to be made to really build up the list. Furthermore, the design of the Bird Map is such that with more lists made using the 'Full Protocol' (see below), we can even get an idea of *relative abundance and status* (seasonality) and not just a flat distribution - all information which is very useful for understanding and conserving our birds.

In order to get these data, we need citizen scientists to help - people like yourself who are keen birders and who are excited about trying to see as many birds as possible from as many different places as possible. By signing up and then going birding following a simple protocol (see below), recording the birds seen and then submitting them to the Kenya Bird Map, you can be sure you are contributing directly to building the map and our understanding of Kenya's birds.

Records and maps for all species can be freely viewed on the website: http://kenya.birdmap.africa/

Website: http://kenya.birdmap.africa/ ; Contact: kenyabirdmap@naturekenya.org

The requirements for becoming a Kenya Bird Mapper

There is really only one requirement for anyone who wants to register as a bird mapper: That is the **ability to identify birds in the field**. This means being able to distinguish between the different bird species that you see (and hear if possible). You do not need to be a complete expert on all the birds however. A good rule of thumb is that if you can identify at least 7 out of every 10 birds that you see in your area, you are good to go. Your identification skills will improve over time, and in fact bird mapping is a great way to sharpen your skills since it challenges you to find as many birds as possible!

If you are still a beginner and not confident with your bird ID skills, you can contribute to the Kenya Bird Map by submitting bird photos to the Virtual Museum (http://vmus.adu.org.za/). Make sure you choose the BirdPix option when selecting which project to upload the photos to. You do not have to know which bird you have photographed. Photos that you upload will be identified by experts and then added as records to the Kenya Bird Map. Click the 'Help & Documents' page on the website for detailed instructions on how to upload your photos.

The basic procedure of collecting and submitting Bird Map records

Kenya has been divided up into grid squares called '**pentads**' as they measure five minutes of longitude by five minutes of latitude in size (about 9x9 km).

To start atlassing, it's easy! Work out which pentad you're in (this is easy with the BirdLasser app), grab your binoculars, smart phone or notebook, a snack to keep you going ... and start recording any and every species of bird you can hear/see and identify with 100% confidence!

Try and **find as _many_ species as you possibly can in the pentad you are doing**. Set yourself the challenge of beating any other list that has been done for that pentad, or beating your own previous highest total! This would ideally mean moving around the pentad to visit different habitat types - e.g. if you find a pond / dam, you invariably can add Common Moorhen, Grey Heron, Lesser Swamp Warbler, Little Grebe etc..., find some scrub and you'll probably get some cisticolas, go through the back streets of a town to look for House Sparrow, Speckled Pigeon and African Pied Wagtail...

If at all possible, **do a minimum of two hours of focused birding** (i.e. not just sitting in a café / shopping / having a cup of tea etc, but actually out looking for birds). Keep adding species for up to **FIVE DAYS** before starting a new card/list for that same pentad. (The BirdLasser app tracks the days for you). The two hours can be broken up into smaller parts - e.g. 1/2 hour on day one, 1 hour on day two and another 1/2 hour on day five. So long as the total time birding is at least 2 hours.

It is also important to record the species *in the order that you find them*.

Done in this way, the species list is called a **Full Protocol** card and is by far the most valuable type of list for later analysis of data. If you were unable to follow this protocol, e.g. it was not possible to do at least 2 hours of birding within the 5-day period because you were extremely busy, then simply record as many species as possible in the little time that you have. You will then submit your list as an **Ad hoc** card.

If you are using a notebook instead of a smartphone, make sure to record the start time and end time, and mark the end of each hour as well. You will then later enter your list manually into the website.

Using the smartphone app **BirdLasser** allows you to submit your list to the Bird Map directly from the app. The app automatically records all the important details such as the pentad (using your phone's GPS to locate you), start time, and hourly totals. It will also automatically start a new list when you cross a pentad boundary into a new pentad, or when you pass the 5-day limit for the pentad you are currently mapping. This means that with the app, you do not have to worry about these details and can focus on the birds. Using BirdLasser is the recommended way to record and submit your lists.

How to register on the Kenya Bird Map

Simply visit the Kenya Bird Map website (http://kenya.birdmap.africa/), click 'Register' and enter your details.

BIRDLASSER

Once registered, you can download the BirdLasser app for free on your phone's app store. The app is available for Android and iOS phones.

After you have downloaded the app, follow the simple steps below to start bird mapping.

(Please note that the guide below if for the Android version of the app. For the iOS/iPhone guide, please visit https://www.birdlasser.com/ and click on 'iPhone quick guide' in the website footer).

BIRDLASSER USER GUIDE

Please follow these steps to set up your BirdLasser app once downloaded

1. Open the app and **register** using any email address and password of your choice. This is the email and password that you will use whenever logging into the app.
2. A verification message from BirdLasser (userpin@birdlasser.com) will be sent to your email
1. address. Open the message and **click the verification link** contained in it.
2. Once verified, click the options symbol (3 parallel lines in the top left corner) and go to **Settings**
3. In the Settings, go to **Regions and languages** > make sure the **Region** is set to Eastern Africa > set the **Taxonomy** to Howard and Moore > Set the **Primary language** to English (Kenya), **Secondary language** to English Howard and Moore, and **Tertiary language** to Scientific Howard and Moore.
4. Go back to Settings and click **Atlassing**. Fill in your Observer Name and Observer Number (the Citizen Scientist (CS) number given to you when you registered on the KBM website). Tick **Atlassing mode** so that it is always on.

5. You are now ready to start using the app for bird mapping. Go back to the main menu and click on the plus symbol at the bottom right corner to create a Trip Card, give it a name of your choice and start logging (recording) the birds that you see.
6. Make sure that your phone's location (GPS) is turned on in order for the app to detect which pentad you are in
7. An internet connection is only required when submitting your records to the Kenya Bird Map. It is not required when out recording the bird list.

Now let's start logging

Follow these steps to begin recorded your bird lists

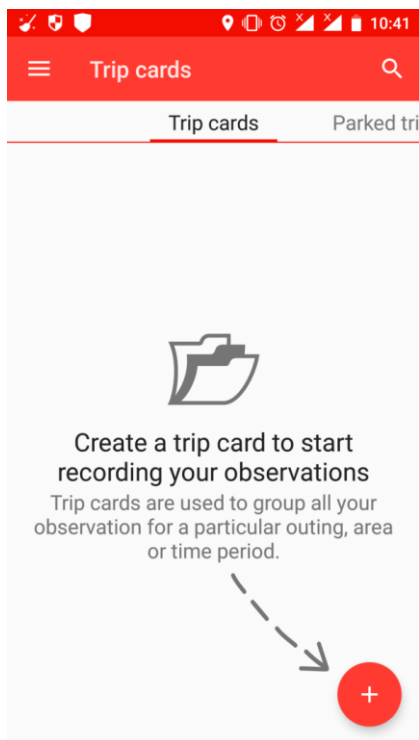1. Tap on the "+" to add a new trip card. The **Add Trip Card** screen will be displayed (Fig. 4):
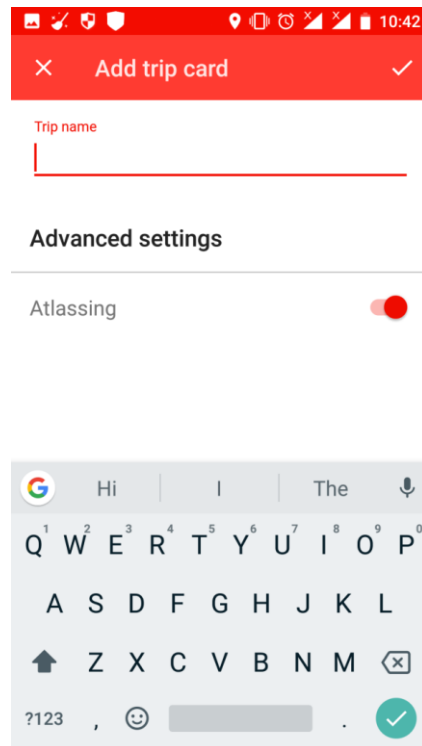

Fig. 4 Add trip card screen

Fig. 5 Add Trip card screen showing 'Atlassing' mode

What is meant by a 'Trip card'? This is the list of species that you record using the app. It can cover many pentads and so normally should not be limited to one pentad. The app will automatically recognise when you cross into a new pentad and start a new pentad list accordingly even within the same Trip card. You can open a Trip card for a set period of time for an area (e.g. a month of birding around your home area), or for a trip / safari you are doing. Do not set up separate trip cards covering the same pentad for the same period unless you make sure you only submit *one* of them, otherwise you will duplicate records.

Name the 'trip' accordingly, e.g. ***April at Home***, ***Nakuru National Park***or ***Karura Forest Birdwalk***. Please note that trip cards should have a start and end, i.e. don't keep a trip card going indefinitely –

the more records in a trip card, the slower the app gets. Anything less than 700 records will do no harm.

2. Now tap on your trip card to open it. At last, you can start logging now!
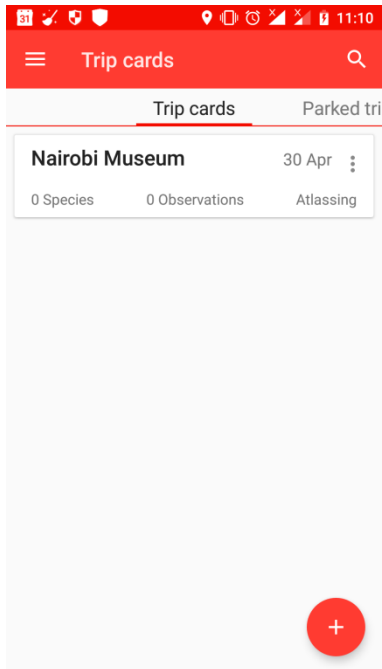

Fig. 6Trip card list screen. It shows the list of trip cards you've set up.
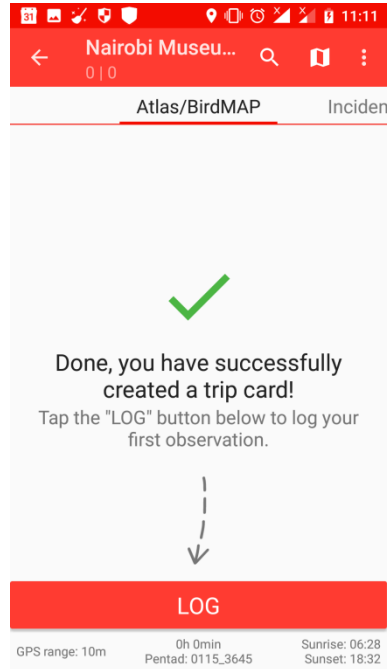

Fig. 7 Newly opened Trip card screen (before any records have been entered)

Tap the big **Log** button at the bottom of the screen. The species database is sorted alphabetically, with the only exception that Unidentified* is at the top of the list (Fig. 8).
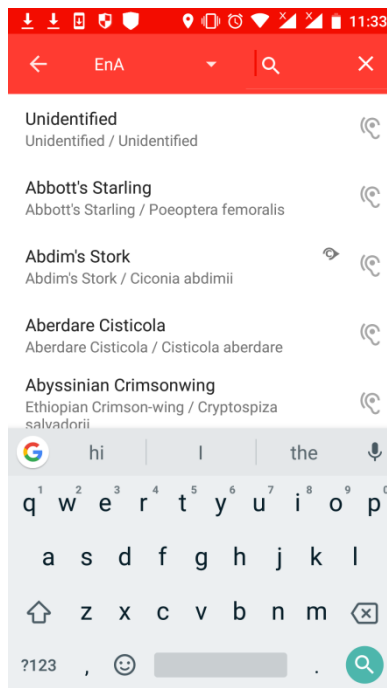

Website: http://kenya.birdmap.africa/ ; Contact: kenyabirdmap@naturekenya.org

Fig. 8 Species list

*Log **Unidentified** if you couldn't identify the species you saw/heard. This is a great way of creating a place-holder that can be changed to the actual species once you've identified it from photos or recordings at a later stage.

Tap on the species name to log a species as "seen"; tap on the ear icon to log the species as "heard".

Log multiple species in one go by tap-and-hold on a species, then tap-and-hold on another (or tick the tick-box). Once you've selected all the desired species, tap on "+" to add them all to the trip card.

The Search

Our Search engine is quite powerful and unconventional. Instead of going with the usual alphabetical search methodology, which, although accurate, can take some time to zone in on the desired species. We decided that we needed something revolutionary, something that will require the least amount of effort by the user. After all, you're supposed to have your eyes on the skies, and not on your phone.

There are multiple ways of getting to the species you want to record. As an example, let's say you want to log **Common Sandpiper.** The logical approach would be to type in the complete name: **common sandpiper** (you don't have to use capital letters).

Note as you start typing, the list dynamically zooms in on matches. By the time you've type **common sand**, Common Sandpiper is already top of the list.

If searching by species group suits you better, start off by typing **sandpiper**. All the sandpiper species will be displayed (note that by the time you've entered **sand** the list of sandpipers are already displayed).

The quickest way to zoom in on the desired species, is to use the first 2 letters of each word, separated by a space. For Common Sandpiper, type **co sa**.

A few other tips:
- Last few letters of the first word and first few letters of the second name e.g. Com**monSand**piper (mon sand)
- Start anywhere within the word, e.g. **geo**(pi**geo**n)
- Use part of the scientific name (helps you learn them!) e.g. 'mori' gives you only Red-winged Starling *Onychognathus **mori**o*
- If the species name is a double consonant (e.g. Little Egret), type the double characters first, then start with the other word: **tt eg** for Li**tt**le **Eg**ret, or **ss ll** for Le**ss**er Striped Swa**ll**ow
- Other cool shortcuts include **Zos** for White-eyes (because their genus is *Zosterops*); **Awa** for Go-**awa**y-birds

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The experienced BirdLasser user hardly ever enters more than 3 characters to have the desired species appear on screen. It's fun finding that unique combination – play around till you find it and share with others.

The trip card's List View

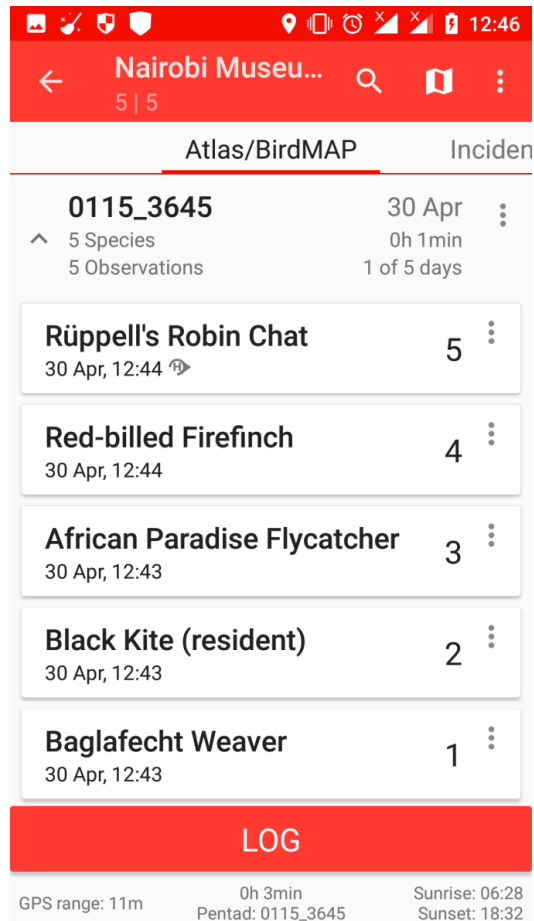As you log species, seen or heard, your trip card's list starts growing *(See Fig. 9)*:

Fig 9: Trip card list growing as species are logged

*Note: You can have '*heard'* species count towards the species count (and your lifelist) by ticking "**Include heard species**" under **Settings**. Heard species have a (H) symbol next to them (see the Ruppell's Robin Chat in the example above)

- To view the species on a map, tap on the Map icon (top right corner)

- Tap on a record to see features and details of that particular record (e.g. GPS coordinates)

For more features linked to trip cards, go to the app's main menu and click on the options icon of the trip card (three vertical dots, to the right of the trip card's name and date). These additional features include sharing the trip card via email (either as a summary or a detailed CSV file) and exporting your list to eBird (Fig. 10).
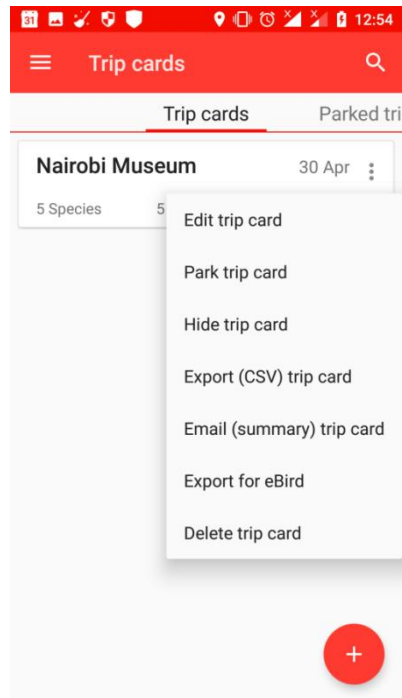
Website: http://kenya.birdmap.africa/ ; Contact: kenyabirdmap@naturekenya.org

Fig 10: Trip card options

Atlassing

The app has the **atlas protocol** built in, i.e. it will create a new field sheet when you cross into a new pentad, or exceed the 5-day period, will ignore duplicates but count species heard. What it doesn't know is how much of the time you spent in a pentad was spent atlassing, hence all field sheets with more than one record will always be regarded as Ad-hoc Protocol. You can change this when you prepare your field sheet for submission to Kenya Bird Map.

However – NOTE that the timer keeps time of *how long you are in the pentad* – NOT necessarily how long you spend birding / atlassing. Thus if you stop for chai or lunch, the time continues even though you are not birding. Make sure to *'park'* the list if you stop birding. If you see a new species while having chai, simply unpark, log it and park the list again. A trip card is parked through the trip card options (see Fig. 10).

When parking a trip card, all the timers will stop.

Submitting records to the Kenya Bird Map

Open the trip card you want to submit and tap on the options icon (3 vertical lines right next to the date). A pop-up appears (Fig. 11) – select "**Submit to BirdMAP**".
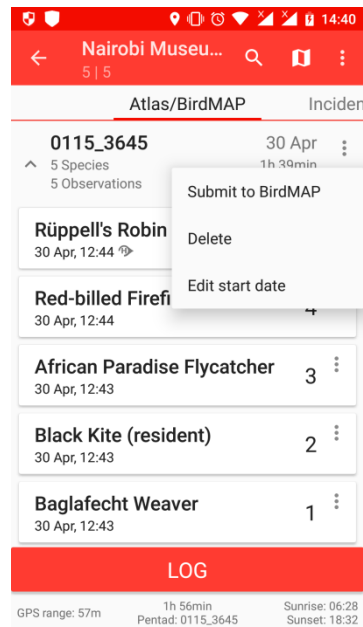

Fig. 11 - Submitting a trip card

A new screen will open up - the "**Submit field sheet**"(Fig. 12). Here you set all remaining field sheet parameters / options and check your records. Most importantly, you set the field sheet protocol, i.e. **Ad-hoc** or **Full Protocol**. Note that by default, all field sheets are set to Ad-hoc Protocol.
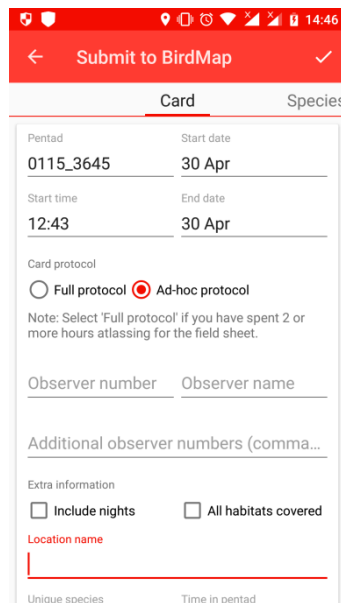

Fig 12 - The Submit field sheet

Website: http://kenya.birdmap.africa/ ; Contact: kenyabirdmap@naturekenya.org

Go through all the parameters, make sure all are set correctly according to the atlassing you have done. If you have not done 2 hours of focussed birding in the pentad, make sure the 'Protocol' is set to 'Ad hoc'.

Note that you can move species between hours: open the list of birds logged for that hour, tap on the small arrow icon on the right hand side of the species listed at the start or end of the hour and it will move it into the adjacent hour.

Once all done, tap on the " ∨ " icon to to submit the field sheet to **Kenya Bird Map** (Fig. 15)**.**

Lifelist and Data Safety

BirdLasser is also a great tool for maintaining your bird records overall, as it keeps your trip lists and Lifelist. Your Lifelist is a list of all the birds you have ever recorded since you started using the app. This includes the date, time and GPS coordinates of each record. You can filter your records by year and region (e.g. East Africa, Southern Africa) as well as by alphabetic order, count (number of observations) and by lifer. Click on the options symbol in the app's main menu to access your Lifelist.

All of your data is safe even if you lose your phone. Simply re-download the app and log in using the same details you used to register on the app initially.